

USSR/Medicine - Brill's Disease

FD-1623

Card 1/1 : Pub. 148-3/23

Author : Mertsalov, Ye. N.; Tungachina, Z. M.; Bendyukova, L. Ye; and Voly-  
nets, A. D.

Title : The problem of secondary exanthematous typhus in the Kazakh SSR

Periodical : Zhur. mikro. epid. i immun. 7, 11-13, Jul 1954

Abstract : Data on secondary exanthematous typhus [Brill's disease] obtained in epidemiological investigations carried out by epidemiologists in Kazakh SSR rayon and city sanitary-epidemiological stations in conjunction with scientific workers of the Kazakh Institute of Epidemiology and Microbiology are discussed. A brief statistical analysis of the data is given. One Soviet reference is cited.

Institution : Kazakh Institute of Epidemiology, Microbiology and Hygiene (Dir. Z. A. Roshchina)

Submitted : November 4, 1953

VOLYNETS, A.K. [Volynets', A.K.]

Materials for further studying the etiology of infectious atrophic rhinitis of swine. Mikrobiol. zhur. 26 no.3:69-73 '64.

(MIRA 18:5)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya.

VOLYNETS, Aleksandr Potapovich; MASHTAKOV, Sergey Mikhaylovich;  
POZDNYAKOVA, A., red.

[Effect of 2M-4KH and 2, 4-D herbicides on fiber flax  
varieties] Deistvie gerbitsidov 2M-4KH i 2,4-D na sorta  
L'na-dolguntsa. Minsk, Nauka i tekhnika, 1965. 70 p.  
(MIRA 18:12)

VOLYNETS, A.P. [Valynets, A.P.]; MASHTAKOV, S.M. [Mashtakou, S.M.]

Reaction of some varieties of fiber flax to treatment with  
2,4-D and 2M-4Kh herbicides. Vestsi AN BSSR Ser. bial. nav.  
no.2:34-41 '63 (MIRA 17:3)

MASHTAKOV, S.M.; VOLYNETS, A.P.

Interaction of gibberellic acid and the derivatives of  
phenoxyacetic acid in flax plants. Dokl. AN BSSR 7 no.4:  
266-269 Ap '63. (MIRA 16:11)

1. Institut biologii AN BSSR. Predstavleno akademikom AN  
BSSR T.N. Godnevym.

VOLYNETS, A.P. [Valynets, A.P.]; MASHTAKOV, S.M. [Mashtakou, S.M.]

Morphological changes in the varieties of fiber flax treated  
with growth regulating herbicides. Vestsi AN BSSR. Ser. biol.  
nav. no.4:33-39 '62. (MIRA 17:8)

MASHTAKOV, S.M.; VOLYNETS, A.P.

Interaction of gibberellic acid and the derivatives of phenoxyacetic acid in fiber plants. Dokl. AN SSSR 150 no.1:191-194 My '63.  
(MIRA 16:6)

1. Institut biologii AN Belorusskoy SSR. Predstavleno akademikom A.L.Kursanovym.

(Flax) (Gibberellic acid)  
(Plants, Effect of acids on) (Acetic acid)





VOLYNETS, F. K., Cand Chem Sci (diss) -- "The evaporation of lubricating oils and greases used in the optical-mechanical industry". Leningrad, 1960.

10 pp (State Order of Lenin Optical Inst im S. I. Vavilov), 150 copies

(KL, No 11, 1960, 129)

VOLYNETS, I. (Perm')

They keep their promise. Pozh.delo 7 no.9:22 3 '61.  
(MIRA 14:11)

(Perm--Fire departments)

VOLYNETS, I.

This is only the beginning. Sov.profsoiuzy 7 no.1:41-42  
Ja '60. (MIRA 12:12)  
(Socialist competition)

VOLYNETS, I.F., starshiy prepodavatel'

Communist Youth League, an active assistant of the CPSU  
profitability of state farms on virgin lands. Uch. zap.  
Stavr. gos. med. inst. 12:27-28 '63. (MIRA 17:9)

1. Kafedra marksizma-leninizma (zav. dotsent D.V. Fomin)  
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

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The regeneration of plasma proteins after loss of large amounts of blood. I. P. Valtajä, J. med. Assoc. 6, 783-80 (in French, 1908). The proteins of blood plasma are regenerated within 24 hrs. after removal of 25% of the blood vol. of rabbits by severance of the carotid artery. The erythrocyte: plasma ratio before and after bleeding was 1:1 and 1:2, resp. The values on the 1st, 5th, 10th and 20th days after bleeding for residual N were -2, -11, -10 and -6%, resp., for fibrinogen N +14, +35, -15 and -35%, resp., for albumin N -2, +1, +6 and +4%, resp., and for globulin N +13, +21, +18 and +25%, resp., of the initial values. The globulin value begins to increase 2 hrs. after bleeding. The hemoglobin content reaches a min. on the 5th day, at the point of max. protein increase, then increases to a max. on the 10th and returns to normal on the 20th day.

S. A. Karjala

ADDITIONAL LITERATURE CLASSIFICATION

117 AND 120 ORDERS																	100 AND 8TH ORDERS																
PROCESSES AND PROPERTIES INDEX																																	
<p><i>Ca</i></p>																	<p style="font-size: large; float: right;">19</p> <p>Volumetric analysis of silica brick and quartzites. M. Vodyanits. Uzbair. Khim. Zhur. 12, 517-18(1937); cf. U. S. 31, 572.<sup>o</sup>--The sample is fused with NaOH. Fe and Ti are sepd. from Ca and Mg by means of NH<sub>4</sub>. Fe and Ti as well as Mg are then sepd. and pptd. with o-hydroxyquinoline. Ca is pptd. as the oxalate. Ca is detd. with KMnO<sub>4</sub>; all others are detd. by the bromometric method.</p> <p style="text-align: right;">B. Z. Kamich</p>																
<p style="text-align: center;"><b>ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION</b></p>																																	

**Volynskii, M. VOLUMETRIC ANALYSIS OF SILICA BRICK AND QUARTZITE. *Phosin. Khim. Zhur.* 11, 607-15 (1917).** The sample is fused with NaOH. Iron and titanium are separated from Ca and Mg by means of NH<sub>4</sub>. Iron and Ti as well as Mg are then separated and precipitated with  $\alpha$ -hydroxyquinoline. Calcium is precipitated as the oxalate. Calcium is determined with KMnO<sub>4</sub>; all others are determined by the bromometric method.

<p>CH</p> <p>7</p> <p>DETERMINATION OF SMALL QUANTITIES OF SODIUM CARBONATE IN PURIFIED BICARBONATE. I. I. Degtyarev and M. I. Volynets. <i>Zhurnal Khim. Fiz.</i> 10, 582-6 (1941). Prep. Standard soln. by dissolving 0.2 g. of phenolphthalein in 20 ml. of alc. in a 100-ml. flask and add distl. water to the mark (soln. I). Dil. 1 ml. of I to 100 ml. with 0.1 N Na<sub>2</sub>CO<sub>3</sub> (soln. II). Dil. the required quantity of II to 100 ml. with 0.1 N Na<sub>2</sub>CO<sub>3</sub> soln. (soln. III). The quantity of II used for the prepn. of III depends on the expected amt. of Na<sub>2</sub>CO<sub>3</sub> in the sample. Five, 10, and 20 ml. of II per 100 ml. of III are used if the expected percentages of Na<sub>2</sub>CO<sub>3</sub> in NaHCO<sub>3</sub> are 0.15, 1.0, 3.0, and 3.0-5.0%, resp. Soln. II can be kept for 24 hrs. Soln. III is good for 8 hrs. Soln. II in the colorimeter is good only for 1 hr. Pour 0.84 g. of NaHCO<sub>3</sub> (weighed to within 5 mg.) into a 100-ml. measuring flask, add water to the mark, and stopper immediately. Dissolve the NaHCO<sub>3</sub> by shaking the flask. Transfer 25 ml. of the soln. to a 35-50-ml. beaker, and add 1 ml. of soln. I. Rinse the colorimeter vessel with a small portion of the colored soln., using the remainder for the colorimetric detn. Fill the 2nd vessel of the colorimeter with soln. III, and compare the colors. Nine references.</p> <p>W. R. Henn</p>	
<p>ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>	<p>FROM SOURCE</p>
<p>10000 02</p>	<p>10000 02</p>



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101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200

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VOLYNETS, L.M.; LEVENKO, A.A.; MARKOVICH, M.L.; MUCHNIK, V.M.

Radar observation as a method for studying the influence  
on supercooled strati. Meteor. i gidrol. no.10:3-9 0 '63.  
(MIRA 16:11)  
1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskii  
institut.

VOLYNETS, L.M.; MARKOVICH, M.L.; MUCHNIK, V.M.

Some problems in increasing the accuracy of radar measurement  
of amounts of precipitation. Trudy UkrNIGMI no. 42:42-52 '64  
(MIRA 18:1)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

L 20827-66 EWT(1)/FCC GW

ACCESSION NR: AT5017684

UR/2599/65/000/047/0051/0058

AUTHORS: Volynets, L. M.; Markovich, M. L.; Muchnik, V. M.

10  
9  
B+1

TITLE: Some results of measuring rainfall amounts per area by radar

SOURCE: Kiyev. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy, no. 47, 1965. Voprosy aktivnykh vozdeystviy na atmosferynye protsessy (Problems of active influences on atmospheric processes), 51-58

TOPIC TAGS: rainfall, radar, measurement accuracy, weather station

ABSTRACT: The precision of radar measurements of rainfall in showers is examined in relation to its dependence on size of area and length of time interval between measurements. It was found that the precision increases as the area of measurements is increased. In comparing such computations with rain gage measurements at stations arranged in a network with a density of 1 per 16 km<sup>2</sup>, the average error for an area of 81 km<sup>2</sup> proved to be 12%, with a maximum of 37%. For an area of 162 km<sup>2</sup> the corresponding values are 10 and 30%, for 324 km<sup>2</sup> 8 and 16%, and for 648 km<sup>2</sup> 7 and 14%. The average rainfall for the 81-km<sup>2</sup> area was 0.1-4.2 mm.

L 20827-66

ACCESSION NR: AT5017684

Two methods of computing average rainfall were considered. One was based on the assumption that the rainfall intensity does not change during the time interval between measurements, and the other was based on the assumption that the intensity varies linearly with time during the interval. For 2-minute intervals between measurements, the method of computation (for rainfall per hour for the 81-km<sup>2</sup> area) made little difference on the results. For intervals of 4 to 10 minutes, however, it was found to be much more accurate to use the second method. This accuracy further depends on the length of the time interval. The average variation for computations with a 4-minute interval, using the second method, is 3% as compared with the 2-minute interval; the maximum is 6%. For the 6-minute interval the variance is 4% for the average, 7% for the maximum, and for the 10-minute interval the two values are 10 and 29%. It thus becomes clear that measurements should be made at intervals of 2 minutes or less. Orig. art. has: 1 figure, 3 tables, and 3 formulas.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskii institut (Ukrainian Scientific Research Hydrometeorological Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF SOV: 003

OTHER: 003

Card 2/2 vrb



L 10687-65

ACCESSION NR: AT4046362

a quartz spectrophotometer. Corrections were made for transmission and reflection losses according to Bereskin's method, the complex transmission factors so obtained plotted for a twelve-hour period, the components showing the same pattern as the integral flux. The spectral distribution obtained was in agreement with that previously found by K. L. ... There were large fluctuations in the overall flux, paralleled by variations in the components, but the available data were limited by the lack of sufficient clear weather. The long wavelength limit of each filter was 3000 m  $\mu$  and the short wavelength limits were 290, 431, 535, 575, 638 and 697 m  $\mu$ , respectively, this range being considered adequate for all scientific purposes. Orig. art has: 4 tables, 2 figures and 1 equation.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, Kiev (Ukrainian Hydrometeorological Scientific Research Institute)

Card 2/3

L 10687-65

ACCESSION NR: AT4046362

SUBMITTED: 00

ENCL: 00

SUB CODE: ES, AA

Card 3/3

ACC NR: AP6022220

SOURCE CODE: UR/0362/66/002/006/0617/0629

AUTHOR: Volynets, L. M.; Markovich, M. L.; Muchnik, V. M.

ORG: Ukrainian hydrometeorological research institute (Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskiiy institut)

TITLE: Results of rainfall measurements by a distance-compensated radar

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 2, no. 6, 1966, 617-629

TOPIC TAGS: radar, meteorologic radar, distance compensated signal radar, atmospheric precipitation/ARS-3 meteorologic radar

ABSTRACT: This paper discusses an improved meteorological radar with echo signal intensity compensation for the distance, and presents the results of rainfall measurements. Distance compensation is achieved by a logarithmic IF amplifier proposed by N. Kodaira (Pap.Meteor. Soc. Japan, v.10, no.2, 1959), which was incorporated into a standard ARS-3 weather radar. Compression of the dynamic correction range was added. Correction was effected between 8 and 80 km, corresponding to  $2\log(R/R_0)=20\text{db}$ ;  $R_0=8\text{km}$ . Results of a series of 15 rainfall measurements are presented. The radar delivers better data, faster. Error sources are discussed and thoughts on their alleviation given. Operation of the equipment and evaluation of the data are described in detail. Orig. art. has 4 figures, 10 formulas and 6 tables.

SUB CODE: 04, 17/  
Card 1/1

SUBM DATE: 10Jan66/

ORIG REF: 007/

OTH REF: 002

UDC 551.501.81



VOLYNETS, I.M.; MARKOVICH, M.L.; MUCHNIK, V.M.

Some characteristics of individual showers accord'ng to data  
of radar observations. Meteor. i gidrol. no.3:21-23 Mr '65.  
(MIRA 18:2)

1. Ukrainskiy nauchno-issledovatel'skiy gidrometeorologicheskii  
institut.

MALYUTA, D.I., inzh.; VOLYNETS, M.A., inzh.; KIKOVKA, Ye.I., inzh.;  
KNYAZEV, K.I., inzh.; YEFREMOV, E.I., kand. tekhn. nauk; IL'IN,  
V.I., inzh.

Experience in the blasting of hard ores by deep boreholes  
in the open-pit mine of the Krivoy Rog Mining and Ore Dressing  
Combine. Vzyv. delo no.57/14:145-151 '65. (MIRA 18:11)

1. Novo-Krivorozhskiy gornoobogatitel'nyy kombinat (for Maljuta,  
Volynets, Kikovka, Knyazov). 2. Filial Instituta mekhaniki  
AN UkrSSR. (for Yefremov, Il'in).

DRUKOVANYI, M.F., kand. tekhn. nauk; YEFREMOV, E.I., kand. tekhn. nauk;  
KOMIR, V.M., inzh.; MALYUTA, D.I., inzh.; VOLYNETS, M.A., inzh.;  
KIKOVKA, Ye.I., inzh.

Ways of further improvements in the design of charges for blasting  
operations in mines. Vzryv. delo no.57/14:198-209 '65.

(MIRA 18:11)

1. Filial instituta mekhaniki AN UkrSSR (for Drukovanyy, Yefremov,  
Komir). 2. Novo-Krivorozhskiy gornoobogatitel'nyy kombinat imeni  
Leninskogo komsomola (for Malyuta, Volynets, Kikovka).

NIKONENKO, O.P., gornyy inzh.; ANDRIIUTS, G.I., gornyy inzh.;  
POLISHCHUK, A.E., gornyy inzh.; VOLYNETS, M.A., gornyy inzh.

Operation of the SDG-1 bit-dressing machine. Sbor. nauch.  
trud. KGRI no.15:82-86 '63. (MIRA 17:8)

VOLYNETS, M.A., gornyy inzh.; KIKOVKA, Ye.I., gornyy inzh.; TKACHENKO, A.P.

Blasting operations in the pit of the New Krivoy Rog Mining  
and Ore Dressing Combine. Vzyv. delo no.53/10:163-171 '63.  
(MIRA 16:8) .

1. Novo-Krivorozhskiy gornooobogatitel'nyy kombinat imeni  
Leninskogo komsomolo (for Volynets, Kikovka).. 2. Krivorozhskiy  
gornorudnyy institut (for Tkachenko).  
(Krivoy Rog Basin—Blasting)

VOLYNETS, M. P., GEL'PERIN, N. I., and KOLOSOVA, G. M.

"Injector Column for the Separation of Substances by Extraction,"  
by Prof N. I. Gel'perin, M. P. Volynets, and G. M. Kolosova,  
Khimicheskaya Nauka i Promyshlennost', Vol 1, No 5, Sep/Oct 56,  
pp 560-563

A new extraction column of the injector type, which has been designed by N. I. Gel'perin, is described. The effects of the concentration of the substance being extracted, the extracting agent, the acidity, and the salting-out agents on the coefficient of the distribution of uranium between tributylphosphate and water have been studied. Uranyl nitrate was separated from cobalt nitrate by extraction with a 10% solution of tributylphosphate in kerosene in a continuously operating injector column; an extraction of uranium to the extent of 95% was achieved thereby. The radioactive isotopes  $U^{233}$  and  $Co^{60}$  were used as tracers; the concentration of uranium was determined by measuring the alpha-radiation and that of cobalt by measuring the gamma-radiation. The effective height of the column equivalent to one equilibrium stage was found to be 137 millimeters at a rate of flow amounting to 2 liters per hour and a 1:1 ratio between the volumes of the two phases. According to the results obtained, the injector column can also be used for the separation of uranium from iron, chromium, manganese, nickel, and other elements besides cobalt.

*Sum 1239*

*Volynets, m.*

PHASE I BOOK EXPLOITATION

SOV/4443

Akademiya nauk SSSR. Komissiya po analiticheskoy khimii

Metody opredeleniya primesey v chistyykh metallakh (Methods of Determining Admixtures In Pure Metals) Moscow, 1960. 411 p. (Series: Its: Trudy, 12) 3,500 copies printed.

Resp. Eds.: A.P. Vinogradov, Academician, and D.I. Ryabchikov, Doctor of Chemical Sciences; Ed. of Publishing House: M.P. Volynets; Tech. Ed.: T.V. Polyakova.

PURPOSE: This collection of articles is intended for chemists, metallurgists, and engineers.

COVERAGE: The articles describe methods for detecting and determining various admixtures and their traces in pure metals. Also discussed are many chemical, physicochemical, electrochemical, spectrochemical and luminescence methods of analyzing materials of high purity. The editors state that these methods have been developed within the last five or six years by various Soviet scientific institutes, and are now widely used in research and factory laboratories of the Soviet Union. No personalities are mentioned. References, mostly Soviet, accompany each article.

Card 1/9

SOV/443

Methods of Determining Admixtures(Cont.)

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Methods of Determining Admixtures (Cont.)

SOV/443

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Karabash, A.G., Sh. I. Peyzulev, N.P. Sotnikova, and S.K. Sazanova. Determination of Admixtures in Titanium and Titanium Dioxide	108
Klyachko, Yu.A., and M.M. Shapiro. Determination of Nonmetallic Inclusions of Chemically Bonded Oxygen in Titanium	117

Card 3/9



IVANENKOV, Vladimir Nikolayevich ; BRUYEVICH, S.V., prof., otv.  
red.; VOLYNETS, M.P., red.

[Hydrochemistry of the Bering Sea] Gidrokhimia Beringova  
moria. Moskva, Izd-vo "Nauka," 1964. 136 p. (MIRA 17:6)

AUTHOR: Volynets, M. P.

S/030/60/000/03/032/044  
B015/B007

TITLE: Analysis of Rare and Semiconductor Elements 2\

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, Nr 3, pp 101 - 103 (USSR)

TEXT: A conference on the analysis of rare and semiconductor elements took place in Moscow from December 7 to 11, 1959. It was organized by the Gosplan SSSR (State Planning Committee of the USSR), the Gosudarstvennyy nauchno-tekhnicheskii komitet Soveta Ministrov SSSR (State Scientific-technical Committee of the Council of Ministers of the USSR), and the Akademiya nauk SSSR (Academy of Sciences of the USSR). The conference discussed, systematized, and generalized the material collected in this field by various institutions. It was attended by about 1000 delegates from 285 organizations as well as by guests from abroad. Methods of analyzing rare and semiconductor elements were studied in 150 reports. In plenary sessions A. P. Vinogradov spoke about the establishment of conditions for impurities in pure metals and N. P. Sazhin about the demands of industry concerning the degree of purity of materials. I. P. Alimarin discussed the prospects of raising the sensitivity and accuracy of analytical methods. R. L. Globus held a lecture on the present stage and the prospects of development of the industry of chemical reagents. D. I. Ryabchikov, I. P. Alimarin, V. A. Nazarenko, N. S. Poluektov, A. I. Busev, and V. L. Zolotavin spoke about problems concerning the analytical

Card 1/2

Analysis of Rare and Semiconductor Elements

S/030/60/000/03/032/044  
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chemistry of various rare and semiconductor elements. Lectures held by N. M. Pomerantsev, M. S. Chupakhin, I. K. Zadorozhnyy, and V. I. Baranov dealt with the methods of nuclear and paramagnetic resonance, mass spectrometry, and gamma spectrometry. E. Ye. Vaynshteyn spoke about the present stage of X-ray spectrum analysis and its applications. A. K. Rusanov and V. V. Nedler showed that the production of improved sources of spectrum excitation is one of the most promising directions. A. N. Frumkin spoke about the utilization of polarographic maxima and solid electrodes. O. L. Kabanova dealt with the present stage and use of modern electrochemical analytical methods. S. I. Sinyakova, Ya. P. Gokhshteyn, S. B. Tsfasman, B. Ya. Kaplan, and Yu. I. Usatenko discussed the most promising methods of electrochemical analysis. It was found to be necessary to publish a guide-book on the use of the best methods.

Card 2/2

S/075/60/015/004/014/030/XX  
B020/B064

AUTHORS: Savvin, S. B., Volynets, M. P., Balashov, Yu. A., and  
Bagreyev, V. V.

TITLE: Photometric Determination of Microquantities of Thorium in  
Rocks by Means of Arsenazo II

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4,  
pp. 446 - 451

TEXT: The reagent arsenazo II is an improved analog of the reagent  
arsenazo (Uranon) (Ref. 6); its synthesis has been described in Ref. 1. ✓  
Arsenazo II has a number of advantages over arsenazo I and many other  
reagents suggested for determining thorium; its chief advantage is that Th  
can be determined in sufficiently acid solutions (0.1 - 0.6 N HCl), and in  
the presence of rare earths, sulfates, phosphates, etc. In acid solutions  
arsenazo II reacts with Th, Zr, Ti, U<sup>IV</sup>, and Fe<sup>III</sup>, in weakly acid and  
neutral solutions with Al, U<sup>VI</sup>, Cr, Cu, ΣTR, etc. Fig. 1 shows the  
absorption curve of the reagent and its Th compound. The selectivity of

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Photometric Determination of Microquantities of Thorium in Rocks by Means of Arsenazo II S/075/60/015/004/014/030/XX B020/B064

determining Th with arsenazo II is also warranted by the proper choice of the acid concentration and the use of masking substances. In 0.2 N HCl, the effect of almost all other elements is reduced to a minimum, and the masking of thorium by phosphates and sulfates is still slight. Large amounts of Zr and Ti have a disturbing effect, small amounts can be masked by adding of phosphates. 2γ Ti, 3γ Zr, 4-8γ Nb, and Ta, 5γ Fe<sup>III</sup>, 5γ Cr<sup>III</sup>, 5γ Mo, V, and W, 40γ U<sup>VI</sup>, 0.5 - 1 mg Al, and 10 - 150 mg K, Na, Ca, Mg, ΣTR, and Fe<sup>II</sup> do not affect the determination of 10γ Th. The limit is 5 - 10γ Th. The analyzed substance is decomposed by two- or threefold evaporation with hydrofluoric acid, the majority of Zr, Ti, Nb, Ta, Al, Fe, U<sup>VI</sup> are separated by the formation of soluble fluoride complexes, and thorium is precipitated together with the rare earths and calcium which are its carrier substances. Variants of the separation method are given. In the fluoride method, precipitation is repeated by the action of hydrofluoric acid upon the hydroxide precipitate obtained after the dissolution of the first fluoride precipitate in hydrochloric acid and precipitation in ammonia. In the fluoride-oxalate method, after the decomposition of the

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Photometric Determination of Microquantities  
of Thorium in Rocks by Means of Arsenazo II

S/075/60/015/004/014/030/XX  
B020/B064

sample with fluorides and removal of the fluoride ion by evaporation with  $\text{HCl} + \text{HClO}_4$ , homogeneous coprecipitation of thorium with the oxalates of rare earths or calcium with acetone dioxalic acid was carried out at the acid concentration suggested by V. I. Kuznetsov and I. V. Nikol'skaya (Ref. 7), and F. V. Zaykovskiy and L. I. Gerkhardt (Ref. 8) for calcium. The oxalates were filtered off, annealed, the oxides dissolved in  $\text{HCl}(1:10)$ , and thorium photometrically determined with arsenazo II. The analysis took one day. The chromatographic separation of the impurities by ion exchange on the Soviet resin KY-2 (KU-2) in the H-form (100 mesh) is described. Table 1 shows the ratio between thorium and some impurities before and after separation, thus proving that all separation methods examined give satisfactory results. The degree of thorium extraction was determined by means of its radioisotope UXI and by measuring the soft  $\beta$ -radiation UXII with which it is in equilibrium. The total thorium losses amount to a maximum of 12-14%. Table 2 shows the results of thorium determinations by the three methods mentioned. They indicate that two methods, i.e., double fluoride precipitation (time of analysis, 6-8 hours) and fluoride-oxalate precipitation (time of analysis, 24 hours) can be recommended. Fig. 1

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Photometric Determination of Microquantities of Thorium in Rocks by Means of Arsenazo II S/075/60/015/004/014/030/XX  
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shows the absorption curve of a  $2.5 \cdot 10^{-5}$  M arsenazo II solution and a Th-arsenazo II solution of the same concentration. Fig. 2 shows a calibration curve for thorium. There are 2 figures, 2 tables, and 12 references: 10 Soviet and 2 US.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the AS USSR, Moscow)

SUBMITTED: June 1, 1959

Card 4/4

ALIMARIN, I.P.; BILMOVICH, G.N.; BUSEV, A.I.; VAYNSHTEYN, E.Ye.; VOLYNETS,  
M.P.; GORYUSHINA, V.G.; DYMOV, A.M.; YELINSON, S.V.; ZVIAGINTSEV,  
O.Ye.; KOLOSOVA, G.M.; KORCHEMNAYA, Ye.K.; LEBEDEV, V.I.; MALOFEYEVA,  
G.A.; MELENT'YEV, B.N.; NAZARENKO, V.A.; NAZARENKO, I.I.; PETROVA, T.V.;  
POLUEKTOV, N.S.; PONOMAREV, A.I.; RYABUKHIN, V.A.; STROGANOVA, N.S.;  
CHERNIKHOV, Yu.A.; VINOGRADOV, A.P., akademik, otv. red.; RYABCHIKOV,  
D.I., doktor khim. nauk, prof., otv. red.; GUS'KOVA, O., tekhn. red.

[Methods for the determination and analysis of rare elements] Metody  
opredeleniya i analiza redkikh elementov. Moskva, 1961. 667 p.  
(MIRA 14:7)

1. Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii.  
(Metals, Rare and minor)



RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.; IVANOV, V.I.

High-frequency titration. Report No.7: Carbonate compounds  
of thorium. Zhur. anal. khim. 18 no.3:348-356 M-63.

(MIRA 17:5)

1. Institut geokhimi i analiticheskoy khimii imeni  
Vernadskogo-AN SSSR, Moskva.

MISSION NR: AP4038917

AUTHOR: Ryabchikov, D. I.; Volyants, M. P.  
TITLE: Determination of thorium in a mixture of lanthanide series oxides (Polirrit) by complexing chromatography.

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 5, 1964, 642-643

TOPIC TAGS: thorium, ion exchange, separation, spectrophotometric analysis, lanthanide series oxide, complexing chromatography

ABSTRACT: The determination of thousandths of one percent of thorium in Polirrit (a mixture of lanthanide oxides consisting of 40 - 47 %  $\text{CaO}_2$ ; 58 - 41 %  $\text{Nd}_2\text{O}_3$  and  $\text{Pr}_2\text{O}_3$ ; approximately 2 %  $\text{SiO}_2$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{CaO}$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{MgO}$ ) is a complex problem because thorium is very similar in its properties to lanthanides. This study was conducted to investigate the possibility of separating thorium by means of chromatography, using complexing agents as eluents. To verify the possibility of the selective elution of thorium from the cationite column using diethylenetriaminepentaacetic acid, use was made of radioactive isotopes:  $\text{Ca}^{44}$  ( $T_{1/2}=282$  days),  $\text{Y}^{91}$  ( $T_{1/2}=61$  days) and  $\text{Th}^{230}$  ( $T_{1/2}=8.3 \cdot 10^4$  years). The experiments were first conducted with synthetic

RDP86-00513R00186073

ACCESSION NR: AP4038917

solutions and then with Polirit. KU-2 cationite resin (50 - 80 mesh) was used in the ion exchange column. The final determination of thorium after separation was conducted spectrophotometrically, using arsenazo III. Polirit analyzed by this method in two simultaneous experiments contained  $4.7 \cdot 10^{-3}$  and  $4.9 \cdot 10^{-3}$  % Th. Orig. art. has: 1 figure.

ASSOCIATION: Institut geokhimi i analiticheskoy khimii im. V. N. Vernadskogo AN SSSR, Moscow (Institute of Geochemistry and Analytical Chemistry, Academy of Sciences SSSR)

SUBMITTED: 21Oct63

ENCL: 00

SUB CODE: IC, GC

NO REF SOV: 003

OTHER: 000

Card: 2/2

NEMODRUK, Aleksandr Andreyevich; KARALOVA, Zinaida Konstantinovna;  
VINOGRADOV, A.P., akademik, glav. red.; PALEY, P.N., red.;  
VOLYNETS, M.P., red.

[Analytical chemistry of boron ( ${}_5\text{B}^{10,811}$ )] Analiticheskaya  
khimiya bora ( ${}_5\text{B}^{10,811}$ ). Moskva, Nauka, 1964. 282 p.  
(MIRA 17:11)

RYABCHIKOV, D.I.; VOLYNETS, M.P.

Thorium determination in the total of lanthanide oxides  
(polirit) by the method of complex-forming chromatography.  
Zhur. anal. khim. 19 no.5:642-643 '64. (MIRA 17:8)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo  
AN SSSR, Moskva.

GINZBURG, Susanna Il'ichna; GLADYSHEVSKAYA, Klavdiya Antonovna;  
YEZERSKAYA, Natal'ya Anatol'yevna; IVCHINA, Ol'ga  
Mikhaylovna; PROKOF'YEVA, Irina Vasil'yevna; FEDORENKO,  
Nina Vladimirovna; FEDOROVA, Aleksandra Nikolayevna;  
ZVYAGINTSEV, O.Ye., doktor khim. nauk, otv. red.;  
VOLYNETS, M.P., red.

[Manual on the chemical analysis of platinum metals and  
gold] Rukovodstvo po khimicheskomu analizu platinovykh me-  
tallov i zolota. Moskva, Nauka, 1965. 312 p.

(MIRA 18:2)

RYABCHIKOV, D.I.; VOLYNETS, M.P.

Thorium complexons. Zhur. neorg. khim. 10 no.3:619-627 M: '65.  
(MIRA 18:7)

RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.; IVANOV, V.I.

Reply to the "remarks" by I.I. Cherniaev, V.A. Golovnia, A.K. Molodkin on the article by D.I. Riabchikov, M.P. Volynets, V.A. Zarinskii and V.I. Ivanov "High frequency titration. Report No.7: Thorium carbonate compounds". Zhur. anal. khim. 19 no.8:1038-1040 '64. (MIRA 17:11)



RYABCHIKOV, D.I., otv. red.; ALIMARIN, I.P., red.; PALEY, P.N.,  
red.; BORISOVA, L.V., red.; ZOLOTOV, Yu.A., red.;  
SENYAVIN, M.M., red.; KARYAKIN, A.V., red.; VOLYNETS,  
M.P., re

[Modern methods of analysis; methods of studying the  
chemical composition and structure of substances. On  
the seventieth birthday of Academician A.P.Vinogradov ].  
Sovremennyye metody analiza; metody issledovaniia khimi-  
cheskogo sostava i stroeniia veshchestv. K semidesiati-  
letiiu akademika A.P.Vinogradova. Moskva, Nauka, 1965.  
333 p. (MIRA 18:7)

1. Akademiya nauk SSSR. Institut geokhimii i analitiche-  
skoy khimii. 2. Chlen-korrespondent AN SSSR (for  
Ryabchikov).

SAVIN, S.B.; VOLYNETS, M.P.

Structure of the complexes of Th and La with arsenazo III.  
Zhur. neorg. khim. 8 no.11:2470-2478 N '63.

(MIRA 17:1)

1. Institut geokhimii i analiticheskoy khimii imeni Vernad-  
skogo AN SSSR.

RYABCHIKOV, D.I.; VOLYNETS, M.P.; ZARINSKIY, V.A.

Reaction of thorium with sodium hexamethylenediamine  
tetraacetate. Zhur.anal.khim. 18 no.4:542-544 Ap '63.  
(MIRA 16:6)

1. V.I.Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences, U.S.S.R., Moscow.  
(Thorium compounds) (Acetic acid)

RYABCHIKOV, Dmitriy Ivanovich; TSITOVICH, Igor' Konstantinovich;  
VINOGRADOV, A.P., akademik, otv. red.; VOLYNETS, M.P.,  
red.; DOROKHINA, I.N., tekhn. red.

[Ion exchange resins and their uses] Ionnoobmennyye smoly i  
ikh primeneniye. Moskva, Izd-vo AN SSSR, 1962. 185 p.  
(MIRA 16:8)

(Ion exchange resins)

KARYAKIN, A.V.; VOLYNETS, M.P.; Prihimala uchastiye: ZUBRILINA, M.Ye.

Infrared spectra of the carbonate complex of thorium. Zhur.  
strukt.khim. 3 no.6:714-716 '62. (MIRA 15:12)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo.  
(Thorium compounds—Spectra) (Carbonates)

BORNEMAN, I.D., doktor geol.-mineral.nauk, otv.red.; VOLYNETS, M.P., red.-  
izd-va; LEBEDEV, L.A., takhn.red.

[Methods for the chemical analysis of minerals. Vol. 1.]. Metody  
khimicheskogo analiza mineralov. Moskva, Izd-vo Akad. nauk SSSR,  
1961. 99 p. (Akademiia nauk SSSR. Institut geologii rudnykh  
mestorozhdenii, petrografii, mineralogii i geokhimii. Trudy, no.  
64). (MIRA 15:10)

(Mineralogy, Determinative)

BUSEV, Aleksey Ivanovich; VINOGRADOV, A.P., akademik, glav. red.;  
ALIMANIN, I.P., red.; BABKO, A.K., red.; VAYNSHTEYN, E.Ye.,  
red.; YERMAKOV, A.N., red.; KUZNETSOV, V.I., red.; PALEY, P.N.,  
red.; RYABCHIKOV, D.I., red.; TANANAYEV, I.V., red.; CHERNIKHOV,  
Yu.A., red.; VOLYNETS, M.P., red.; MAKUNI, Ye.V., tekhn. red.

[Analytical chemistry of molybdenum] Analiticheskaya khimiya mo-  
libdena. [By] A.I. Busev. Moskva, Izd-vo Akad. nauk SSSR, 1962.  
300 p. (MIRA 16:1)

(Molybdenum—Analysis)

S/192/62/003/006/003/004  
D228/D307

AUTHORS: Karyakin, A.V. and Volynets, M.P.  
TITLE: Infrared spectra of the carbonate complex of thorium  
PERIODICAL: Zhurnal strukturnoy khimii, v. 3, no. 6, 1962, 714-716

TEXT: The aim of the research was to demonstrate the participation of  $\text{CO}_3^{2-}$  ions in the coordination bond of  $\text{Na}_4[\text{Th}(\text{CO}_3)_4]$ .  $\text{Na}_2\text{CO}_3 \cdot 12\text{H}_2\text{O}$  and the presence of free  $\text{CO}_3^{2-}$  in the outer sphere of this complex. Measurements were made on a UR-10 spectrophotometer on wavelengths of 400 to 4000  $\text{cm}^{-1}$ . Data for the hydrated complex show that the frequencies of  $\text{CO}_3^{2-}$  absorption bands coincide quite well with those for the complex  $[\text{Co}(\text{NH}_4)_4\text{CO}_3]$ . Besides absorption bands, relating to  $\text{CO}_3^{2-}$  ions in the inner sphere of the complex, there are others with frequencies of 870 and 1070  $\text{cm}^{-1}$ , possibly relating to the absorption of hydrated  $\text{CO}_3^{2-}$  present in the outer sphere. This is confirmed by appearance of certain absorption bands  
Card 1/2



Infrared spectra ...

S/192/62/003/006/003/004  
D228/D307

in the infrared spectrum of the dehydrated complex. These bands have frequencies of 700-705 and 855  $\text{cm}^{-1}$  and are characteristic and anhydrous  $\text{Na}_2\text{CO}_3$ . There are 2 tables and 1 figure.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo (Institute of Geochemistry and Analytical Chemistry im. V.I. Vernadskiy)

SUBMITTED: July 20, 1962

Card 2/2

LAZAREV, K.G., kand. khim. nauk, otv. red.; VOLYNETS, M.P., red.;  
RYLINA, Yu.V., tekhn. red.

[Modern methods of analyzing natural waters] Sovremennye metody  
analiza prirodnykh vod. Moskva, Izd-vo Akad. nauk SSSR, 1962.  
203 p. (MIRA 15:10)

1. Akademiya nauk SSSR. Gidrokhimicheskiy institut, Novocher-  
kassk.

(Water--Analysis)

UDAL'TSOVA, N.I.; SAVVIN, S.B.; NEMODRUK, A.A.; NOVIKOV, Yu.P.;  
DOBROLYUBSKAYA, T.S.; SINYAKOVA, S.I.; BILIMOVICH, G.N.;  
SEIDYUKOVA, A.S.; BELYAYEV, Yu.I.; YAKOVLEV, Yu.V.;  
NEMODRUK, A.A.; CIMUTOVA, M.K.; GUSEV, N.I.; PALEY, P.N.;  
VINOGRADOV, A.P., akademik, glav. red.; ALIMARIN, I.P.,  
red.; BABKO, A.K., red.; BUSEV, A.I., red.; VAYNSHTEYN, E.Ye.,  
red.; YERMAKOV, A.N., red.; KUZNETSOV, V.I., red.; RYABCHIKOV,  
D.I., red. toma; TANANAYEV, I.V., red.; CHERNIKHOV, Yu.A., red.;  
SENYAVIN, M.M., red. toma; VOLYNETS, M.P., red.; NOVICHKOVA, H.D.,  
tekh. red.; GUS'KOVA, O.M., tekh. red.

[Analytical chemistry of uranium] Analiticheskaya khimiya urana.  
Moskva, Izd-vo Akad.nauk SSSR, 1962. 430 p. (MIRA 15:7)

1. Akademiya nauk SSSR. Institut geokhimii i analiticheskoy  
khimii.

(Uranium--Analysis)

RYABCHIKOV, Dmitriy Ivanovich; TSITOVICH, Igor' Konstantinovich;  
VINOGRADOV, A.P., akademik, otv. red.; VOLYNETS, M.P., red.;  
DOROKHINA, I.N., tekhn. red.

[Ion exchange resins and their uses] Ionoobmennyye smoly i ikh  
primeneniye. Moskva, Izd-vo Akad.nauk SSSR, 1962. 185 p.  
(MIRA 15:7)

(Ion exchange resins)

SOLNTSEV, A.M., kand.med.nauk; VOLYNETS, O.I.

Observation of marble disease (osteopetrosis) in the lower extremities. Vrach.delo no.11:1199 N '59. (MIRA 13:4)

1. Kafedra chelyustno-litsevoy khirurgii (zavednyushchiy - prof. E.A. Aleksandrova) Kiyevskogo instituta usovershenstvovaniya vrachey, i gorodskaya klinicheskaya bol'nitsa.  
(EXTREMITIES, LOWER--DISEASES) (BONES)

AFANAS'YEVA, A.L., kand.biol.nauk; BAYERTUYEV, A.A., kand.sel'skokhozyaystvennykh nauk; BAL'CHUGOV, A.V., kand.sel'skokhozyaystvennykh nauk; BELOZEROVA, H.A., agronom; BELOZOROV, A.T., kand.sel'skokhozyaystvennykh nauk; MAKSIMENKO, V.P., agronom; BERNIKOV, V.V., doktor sel'skokhozyaystvennykh nauk; BOGOMYAGKOV, S.T., kand.sel'skokhozyaystvennykh nauk; VOLYNETS, O.S., agronom; BODROV, M.S., kand.sel'skokhozyaystvennykh nauk; BOGOSLAVSKIY, V.P., kand.tekhn.nauk; KHRUPPA, I.P., kand.tekhn.nauk; VERNER, A.R., doktor biol.nauk; VOZBUTSKAYA, A.Ye., kand.sel'skokhozyaystvennykh nauk; VOINOV, P.A., kand.sel'skokhozyaystvennykh nauk; VYSOKOS, G.P., kand.biol.nauk; GULDIN, M.V., inzhener-mekhanik; GERASIMOV, S.A., kand.tekhn.nauk; GORSHENIN, K.P., doktor sel'skokhozyaystvennykh nauk; YELENEV, A.V., inzhener-mekhanik; GERASKEVICH, S.V., mekhanik [deceased]; ZHARIKOVA, L.D., kand.sel'skokhozyaystvennykh nauk; ZHEGALOV, I.S., kand.tekhn.nauk; ZIMINA, Ye.A., agronom; BARANOV, V.V., kand.tekhn.nauk; PAVLOV, V.D.; IVANOV, V.K., kand.sel'skokhozyaystvennykh nauk; KAPLAN, S.M., kand.sel'skokhozyaystvennykh nauk; KATIN-YARTSEV, L.V., kand.sel'skokhozyaystvennykh nauk; KOPYRIN, V.I., doktor sel'skokhozyaystvennykh nauk; KOCHERGIN, A.Ye., kand.sel'skokhozyaystvennykh nauk; KOZHEVNIKOV, A.R., kand.sel'skokhozyaystvennykh nauk; KUZNETSOV, I.N., kand.sel'skokhozyaystvennykh nauk; LAMBIN, A.Z., doktor biol.nauk; LEONT'YEV, S.I., kand.sel'skokhozyaystvennykh nauk; MAYBORODA, N.M., kand.sel'skokhozyaystvennykh nauk; MAKAROVA, G.I., kand.sel'skokhozyaystvennykh nauk; MEL'NIKOV, G.A., inzhener; ZHDANOV, B.A., kand.sel'skokhozyaystvennykh nauk; MIKHAYLENKO, M.A., kand.sel'skokhozyaystvennykh nauk; MAGILEVTSEVA, N.A., kand.sel'skokhozyaystvennykh nauk;

(Continued on next card)

AFANAS'Yeva, A.L.... (continued) Card 2.

NIKIFOROV, P.Ye., kand.sel'skokhozyaystvennykh nauk; NENASHEV, N.I.,  
lesovod; PERVUSHINA, A.N., agronom; PLOTNIKOV, N.A., kand.biol.nauk;  
L.G.; kand.sel'skokhozyaystvennykh nauk; PAVLOV, V.D., kand.tekhn.  
nauk; PRUTSKOVA, M.G., kand.sel'skokhozyaystvennykh nauk; OURCHENKO,  
V.S., agronom; POPOVA, G.I., kand. sel'skokhozyaystvennykh nauk;  
PORTYANKO, A.F., agronom; RUCHKIN, V.N., prof.; RUSHKOVSKIY, T.V.,  
agronom; SAVITSKIY, M.S., kand.sel'skokhozyaystvennykh nauk; BOLDIN,  
D.T., agronom; NESTEROVA, A.V., agronom; SERAFIMOVICH, L.B., kand.  
tekhn.nauk; SMIRNOV, I.N., kand.sel'skokhozyaystvennykh nauk;  
SEREBRYANSKAYA, P.I., kand.tekhn.nauk; TOKHTUYEV, A.V., kand. sel'sko-  
khozyaystvennykh nauk; FAL'KO, O.S., iznh.; FEDYUSHIN, A.V., doktor  
biol.nauk; SHEVLYAGIN, A.I., kand.sel'skokhozyaystvennykh nauk;  
YUFEROV, V.A., kand.sel'skokhozyaystvennykh nauk; YAKHTENFEL'D, P.A.,  
kand.sel'skokhozyaystvennykh nauk; SEMENOVSKIY, A.A., red.; GOR'KOVA,  
Z.D., tekhn.red.

[Handbook for Siberian agriculturists] Spravochnaya kniga agronoma  
Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry. Vol.1. 1957. 964 p.  
(Siberia--Agriculture) (MIRA 11:2)

POLYAKOV, A.I.; VOLYNETS, M.P.

Thorium distribution in a series of ultrabasic alkaline rocks of the Kola Peninsula. Geokhimiia no.5:426-432 '61. (MIRA 14:5)

I. V. I. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.  
(Kola Peninsula—Rocks, Igneous)  
(Thorium)



KOTOV, A.I., podpolkovnik meditsinskoy sluzhby; TAIAN, F.S.;  
VOLYNEYS, M.I.

Content of vitamin C in soldiers' rations. Voen.-med. zhur.  
no.3:53-55 '65. (MIRA 18:11)

VOLYNETS, O.N.; KOLOSKOV, A.V.; FLEROV, G.B.; FRIKH-KHAR, D.I.; SHILIN, N.L.

Formational delineation of Tertiary plutonic and volcanic-plutonic  
formations in central Kamchatka. Dokl. AN SSSR 165 no.1:153-155  
N '65. (MIRA 18:10)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. Submitted  
March 10, 1965.

VOLYNETS, O.N.; SHILIN, N.L.

On a type of ore manifestation new to Kamchatka. Dekl. AN SSSR 161  
no.6:1412-1415 Ap '65. (MIRA 18:5)

1. Institut vulkanologii Sibirskogo otdeleniya AN SSSR. Submitted  
December 2, 1964.

VOLYNETS, O.N.; FLEROV, G.B.; FRIKH-KHAR, D.I.; SHILIN, N.L.

Evolution of the Tertiary igneous activity in the central range  
of Kamchatka. Geol. i geofiz. no.5:103-107 '63. (MIRA 16:8)

1. Kamchatskaya geologo-geofizicheskaya laboratoriya Sibirskogo  
otdeleniya AN SSSR.

(Kamchatka—Geology, Structural)

(Kamchatka—Rocks, Igneous)

VOLYNNITS, O. S.

SUNFLOWERS

Results of selection and substitution of new varieties of sunflowers.  
Sel. 1 sem. 19 no. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952.  
UNCLASSIFIED.

VOLYNETS, O. S.

Oilseed Plants

Gold-of-pleasure in the U.S.S.R. Sov. agron. 11 No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

VOLYNETS, V.; USHAKOVICH, A.

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

Brief news. Zdrav.Bel. 8 no.2:77 P '62.

(MIRA 15:11)

(PUBLIC HEALTH)

VOLYNETS, V.

In the Ministry of Public Health of the White Russian S. S. R.  
Zdrav. Del. 8 no.4:77-78 Ap '62. (MIRA 15:6)  
(WHITE RUSSIA—PUBLIC HEALTH)

29591

S/108/61/016/011/007/007  
D201/D304

9.2586 (1161)

AUTHOR: Volynets, V.F., Member of the Society

TITLE: A transistorized controlled delay phantastron

PERIODICAL: Radiotekhnika, v. 16, no. 11, 1961, 67 - 73

TEXT: A transistorized phantastron (Fig. 1) is described which is a dual of the "triode phantastron", developed from the circuit suggested by V.I. Voytenko (Ref. 1: Ya.S. Itskhoki, Impul'snaya tekhnika (Pulse Technique), Izd. Sov. radio, 1959). It differs from other phantastron circuits by a cathode follower  $T_3$  being included into the anode cct of  $T_1$ , instead of a resistor. The control of the grid voltage of the cathode follower is by value  $T_2$ . The triode phantastron differs from the usually used circuits in that it has a very small intrinsic non-linearity, does not load the control potentiometer and the overall non-linearity of the delay system is determined only by the specification of the control potentiometer. Its delay time is also more stable with varying heater supply and consumes less power. E.g. if the delay instability in the circuit with ca-

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A transistorized controlled delay ...

thode follower and grid of  $T_1$ , changes by  $\pm 0.1\%$  for a 10 % heater voltage change, the change of delay in a triode phantastron is reduced to  $\pm 0.03\%$ . An additional feature is the presence of a second d.c. positive feedback through  $T_2$  a  $T_3$  which makes it possible to use pentodes with high amplification factors (up to  $10^4$ ) and finally it makes it possible to replace the valves by transistors. The circuit using n-p-n transistors is given in Fig. 4 which is a near perfect dual of the valve phantastron. In this circuit:  $R_1 = 51 \text{ K}$ ,  $R_2 = 11 \text{ K}$ ,  $R_3 = 5.1 \text{ K}$ ,  $R_4 = 0.4 \text{ K}$ ,  $R_5 = 0.3 \text{ K}$ ,  $R_6 = 0 \text{ K}$ ,  $R_7 = 10 \text{ K}$ ,  $R_8 = 3.3 \text{ K}$ ,  $R_9 = 2 \text{ K}$ ,  $R_{10} = 0.2 \text{ K}$ ,  $R_{11} = 0.3 \text{ K}$ ;  $C_1 = 4.7 \times 10^4 \text{ nf}$ ;  $C_2 = 10^4 \text{ nf}$ ;  $T_1, T_2, T_3$  - transistors type П-103 (P-103)  $D_1, D_2$  - diodes type А-101 (D-101); E-21V. The difference consists in addition of diodes  $D_1$  and  $D_2$ .  $D_1$  determines the level at the base of  $T_1$ ,  $D_2$  - limits the voltage drop at the collector of  $T_2$  and prevents saturation. As opposed to the cct in Fig. 1, the transistorized phantastron operates at large currents of the cathode follower. The cct for the p-n-p transistors remains the same except

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for the polarity of supply and diodes and also that of input and output voltages. The circuit non-linearity is determined in the usual way by considering the discharge of the capacitor through a current stabilized two-pole and using the transistor characteristic. For the above cot the non-linearity  $\delta_{\max}$  was calculated to

be 0.25 %. There is moreover, another component of non-linearity which is the non-linear dependence of the low level potential at the collector of T<sub>2</sub> on the angle of rotation  $\varphi$  of the potentiometer. This component is of opposite sign to the previous one, so that by using a single compensating resistor R<sub>12</sub>, the overall non-

linearity may be reduced to 0.1 %. The results of the experiments showed that the delay stability may be kept below  $\pm 0.1$  %, provided the supply is stabilized within  $\pm 5$  % for a two-cathode follower circuit and  $\pm 3$  % for a single cathode-follower stage, the delay stability increases at large delay times.  $R_1$  and C<sub>1</sub> are temperature stable components. The temperature instability is determined mainly by the rate of discharge of C<sub>1</sub>. The temperature compensation is thus achieved by temperature compensation of T<sub>1</sub> or by using in the

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current stabilizing dipole a transistor with a gain independent of temperature which has been confirmed experimentally. The cct consumes about 0.5 Watt without triggering. The cct is recommended for all applications requiring a high linearity delay and the use of transistors is stated not to affect the properties of the circuit. There are 14 figures and 2 Soviet-bloc references. X

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communication im. A.S. Popov) [Abstractor's note: Name of Association taken from 1st page of journal]

SUBMITTED: October 8, 1960 (initially)  
June 12, 1961 (after revision)

Card 4/54

ANDREYEVA, Ye.P.; SEGALOVA, Ye.Ye.; VOLYNETS, Ye.Ye.

Effect of calcium chloride on structure formation in aqueous  
suspensions of tricalcium aluminate. Dokl.AN SSSR 123 no.6:  
1052-1055 D '58. (MIRA 12:1)

1. Katedra kolloidnoy khimii Moskovskogo gosudarstvennogo univer-  
siteta imeni M.V. Lomonosova. Predstavleno akademikom P.A.  
Rebinderom.

(Calcium aluminates) (Calcium chloride)  
(Cement)

5(4)

AUTHORS:

Andreyeva, Ye. P., Segalova, Ye. Ye.,  
Volynets, Ye. Ye.

SC7/20-127-6-26/50

TITLE:

The Influence of Calcium Chloride on the Processes of Structure  
Formation in Aqueous Suspensions of Tricalcium Aluminate  
(Vliyaniye khloristogo kal'tsiya na protsessy  
strukturoobrazovaniya v vodnykh suspenziyakh trokhkal'tsiyevogo  
alyuminata)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 6, pp 1052-1055  
(USSR)

ABSTRACT:

In order to be able to explain the mechanism of the influence  
exercised by calcium chloride on Portland cement it is, above  
all, necessary to know its influence upon the processes of  
structure formation in suspensions of tricalcium aluminate  
( $C_3A$ ). This material, which is contained in cement clinker,  
determines the character of the processes of structure formation  
during the first stages of the interaction between cement and  
water. For this purpose the kinetics of structure formation and  
of the chemical interaction in suspensions of  $C_3A$  and its

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The Influence of Calcium Chloride on the Processes of Structure Formation in Aqueous Suspensions of Tricalcium Aluminate

SOV/20-123-6-26/50

hydrate  $C_3A \cdot aq$  ( $3CaO \cdot Al_2O_3 \cdot 6H_2O$ ) was investigated. These substances were dissolved in solutions of calcium chloride of different concentrations. For such investigations it is best to use mixtures containing from 2 to 10% binding agents and 98-90% filling material (ground quartz sand or calcite). Concentrated suspensions were produced by soaking these mixtures. This made it possible to destroy the crystal structure in the suspension immediately after solution. The samples were kept above water and the corresponding solutions of calcium chloride. The processes of structure formation in the suspensions were characterized by the increase of plastic strength. The results obtained by these experiments are shown by 3 diagrams. The quantity of bound calcium chloride present after the action was the same in all investigated suspensions and amounted to 0.75 mol  $CaCl_2$  per 1 mol  $C_3A$ . Radiographical and thermographical investigations showed the following: In all suspensions in which the quantity of calcium chloride suffices for binding the entire existing  $C_3A$  and its hydrate one and the same compound is formed. The kinetics of the chemical binding of calcium chloride depends to a considerable extent on the composition

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The Influence of Calcium Chloride on the Processes of Structure Formation in Aqueous Suspensions of Tricalcium Aluminate SOV/20-123-6-26/50

of the suspension and especially on the concentration of the calcium chloride solutions. In the solutions of hydroaluminate interaction at first develops more slowly than in suspensions of  $C_3A$  after which, however, the rate of setting increases, and this reaction is in all cases completed already on the second day. In suspensions of  $C_3A$  (which may be of higher concentration than calcium hydrochloroaluminate) the formation of hydrochloroaluminate at first develops very rapidly, but by the addition of medium quantities of  $CaCl_2$  the process becomes more slow. This may be explained by the decelerating influence of hydrochloroaluminate microcrystals which were formed in the case of high degrees of oversaturation and which formed protective films on the surface of the original  $C_3A$ -particles. The special features of the kinetics of the interaction between  $C_3A$  and its chlorate and calcium chloride determine also the special features of structure formation processes in these suspensions.

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The Influence of Calcium Chloride on the Processes of Structure Formation in Aqueous Suspensions of Tricalcium Aluminate SOV/20-123-6-26/50

In the suspensions  $C_3A$  which contain no additions of calcium chloride strengthening continues also after binding of the entire calcium chloride. There are 3 figures and 8 references, 7 of which are Soviet.

ASSOCIATION: Kafedra kolloidnoy khimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Colloid Chemistry of Moscow State University imeni M. V. Lomonosov)

PRESENTED: August 4, 1958, by P. A. Rebinder, Academician

SUBMITTED: July 10, 1958

Card 4/4



VOLYNIN, N.F., inzh.

The MOM-10 coal hammer with a sprayer. Bazop.truda v pron.  
3 no.10:28-30 0 '59. (MIRA 13:2)  
(Coal mining machinery)

VOLYNKIN, A.A.

~~Volynkin, A.A.~~  
Significance of separate types of spring wheat roots and  
conditions for their development. Trudy Inst.fiziol.rast. 8  
no.2:312-350 '54. (MIRA 8:5)  
(Wheat) (Roots (Botany))

VOLYNKIN, A.A.

Variations in the absorption of water by different parts of the root system in the corn plant. Fiziol.rast. 8 no.3:294-298 '61.  
(MIRA 14:5)

1. Kafedra fiziologii rasteniy Saratovskogo sel'skokhozyaystvennogo instituta.  
(Corn (Maize)) (Plants—Absorption of water)

VOLYNKIN, A. A.

USSR/Agriculture - Plant Physiology

Card : 1/1

Authors : Volynkin, A. A.

Title : Effect of a ground ice crust on the winterization of various types of wheat.

Periodical : Dokl. AN SSSR, 97, Ed. 2, 345 - 348, July 1954

Abstract : The effect of ice crust on the winterization of wheat is discussed. Three references. Tables.

Institution : The V. V. Dokuchaev Agricultural Institute of the Central Black-Soil Region

Presented by : Academician A. L. Kursanov, May 3, 1945

VOLYNKIN, G.M.

Improving the equipment of an electroplating shop. Mashinostroitel'  
no.2:9-10 F '65. (MIRA 18:3)

VOLYNKIN, G.M.

Using electric contact heating in straightening thin-sheet  
structures. Mashinostroitel' no.7:8-9 J1 '65.  
(MIRA 18:7)

VOLYNKIN, K.I., inzhener.

Geographical distribution of leather and footwear industries.  
Leg.prom.16 no.12:10-13 D '56. (MLBA 10:2)  
(Shoe industry). (Leather industry)

VOLYNKIN, N.I.



VOLYNKIN, N.I.

9  
2.  
V9782\* to assist in the investigation of the Russian  
the Ministry of the Interior and the Ministry of the  
Ministry of the Interior and the Ministry of the  
Ministry of the Interior and the Ministry of the

PM  
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**The synthesis of vanillin and other hydroxy aldehydes.**  
N. I. Yul'inskiĭ, *J. Applied Chem.* (U. S. S. R.) 11, 423 (1938) German 425 (1938); *J. C. A.* 31, 851 (1938). A mixt. of 5 g. of *o*-MeC<sub>6</sub>H<sub>4</sub>CHO, 3.6 g. of 10% HClO and 0.9 g. of Al filings was added gradually to a mixt. of 20 g. of 10% alc., 25 g. of 30% HCl and 0 g. of *p*-Me<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>2</sub>. The mixt. was added within 4 hrs. and the temp. was kept at 38-40°. The reaction mixt. then was dil. with water and the vanillin formed was extd. with CCl<sub>4</sub> or MePh. After distn. of the solvent in vacuo the vanillin was subjected to 100-400 kg./sq. cm. pressure, in a steel breaker which had fine openings for removal of the mother liquor. The vanillin (yield 70% on the guaranteed), m. 83-4° (after twice wetting with alc. and pressurized), by the above procedure but without Al (yield 100%). By the above procedure (alc.) 30% of vanillin was 20%, and without solvent (alc.) 30% Al used in the synthesis as the reducing agent, permitted the formation of resins and directed the ClO group to the *p*-position with the respect to OH group, therefore decreasing to the min. the amt. of *o*- and isovanillin, which, in turn, simplified the purification of the vanillin. EtOAc-H<sub>2</sub>O (1:1) HClO was made in a similar manner. See references.

A. A. Polgorny

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
COMMON ELEMENTS										COMMON VARIANTS									
13																			
<p>Polishing composition. N. I. Volynkin and N. K. Khelev. Russ. 57,219, June 30, 1940. A polish for nitro lacquers consists of a mineral oil treated with an oleic acid soln. of an oleate, up to 5% glycerol and a vegetable oil.</p>																			
<p>ASB-11A METALLURGICAL LITERATURE CLASSIFICATION</p>										<p>COMMON VARIANTS</p>									
<p>1ST AND 2ND ORDERS</p>										<p>3RD AND 4TH ORDERS</p>									

1ST AND 2ND SERIES										3RD AND 4TH SERIES									
PROCESSING AND PRESERVATION INDEX																			
<p>CO</p> <p>10</p> <p><i>o</i>-Alkylbenzamidcs. N. I. Volynkin. Russ. 52,887, March 31, 1934. Saicylamide is dissolved in a mixt. of volatile org. solvents and glycol, treated with alc. or aq. alc. alkali and an alkali metal alkyl sulfate, the org. solvents and water are distd. off, and the residue is heated at 170-200°.</p>																			
<p>ASB-5LA METALLURGICAL LITERATURE CLASSIFICATION</p>																			
ROOM SYNDICATE										ROOM SYNDICATE									
GROUP 1										GROUP 2									
GROUP 3										GROUP 4									
GROUP 5										GROUP 6									
GROUP 7										GROUP 8									
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GROUP 91										GROUP 92									
GROUP 93										GROUP 94									
GROUP 95										GROUP 96									
GROUP 97										GROUP 98									
GROUP 99										GROUP 100									

1st and 2nd copies										3rd and 4th copies									
PROCESS AND PROPERTIES INDEX																			
20										10									
<p><b>Aromatic hydroxy aldehydes. N. I. Volynkin. Russ. Zh. Khim., Aug. 31, 1939; addn. to Russ. Zh. Khim., Aug. 31, 1944. The method of Russ. M. 437 is modified in that the metal is completely or in part introduced before the phenol and <math>\text{CH}_2\text{O}</math>.</b></p>																			
<p>ASD. 51A METALLURGICAL LITERATURE CLASSIFICATION</p>																			
1000 510000										1000 510000									
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1000 510000										1000 510000									

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*ca*

**Bourbonal.** N. I. Volynkin and P. Ya. Lushakov.  
Russ. 51,153, May 31, 1937. Addn. to Russ. 36,402.  
C. A. 32, 3429. The method described in Russ. 36,402  
is applied to the prepn. of bourbonal from 1-hydroxy-2-  
chloro-4-methylbenzene and alkali metal ethylate.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

1930M 50M199

621157 QM QM 154

1ST AND 2ND ORDER		3RD AND 4TH ORDER	
PROCESSING AND PROPERTY INDEX			
ca		10	
<p>Aromatic hydroxy aldehydes. N. I. Volynkin. Russ. 57,006, July 31, 1940; addn. to Russ. 50,477 (C. A. 31, 4544). In the prepn. of aromatic hydroxy aldehydes from phenols, <math>C_6H_5O</math> and nitrosodimethyl- or -diethyl-aniline, there are used, instead of metal, as reducing agents, sulfites, thionates, hyposulfites, lower oxides of metals, or carbohydrates. I. Ch. C. A. 30, 4610.</p>			
ASD-514 METALLURGICAL LITERATURE CLASSIFICATION			
1ST ORDER		2ND ORDER	
3RD ORDER		4TH ORDER	
5TH ORDER		6TH ORDER	
7TH ORDER		8TH ORDER	
9TH ORDER		10TH ORDER	
11TH ORDER		12TH ORDER	
13TH ORDER		14TH ORDER	
15TH ORDER		16TH ORDER	
17TH ORDER		18TH ORDER	
19TH ORDER		20TH ORDER	
21TH ORDER		22TH ORDER	
23TH ORDER		24TH ORDER	
25TH ORDER		26TH ORDER	
27TH ORDER		28TH ORDER	
29TH ORDER		30TH ORDER	
31TH ORDER		32TH ORDER	
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35TH ORDER		36TH ORDER	
37TH ORDER		38TH ORDER	
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51TH ORDER		52TH ORDER	
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87TH ORDER		88TH ORDER	
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93TH ORDER		94TH ORDER	
95TH ORDER		96TH ORDER	
97TH ORDER		98TH ORDER	
99TH ORDER		100TH ORDER	





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ca

Removal of nickel from sorbitol. N. I. Volynkin.  
U.S.S.R. 66,661, July 31, 1940. To remove Ni from a sorbitol soln. obtained by catalytic hydrogenation of glucose, the soln. is electrolyzed in the presence of a neutralizing substance such as chalk or lime. The electrolysis is carried out in a Cu kettle which acts as cathode, and C is used as anode. The electrolysis is carried out at 3-6 v., 0.01-0.05 amp. per sq. cm., for 1-2 hrs. M. Hosh

AIN-55A METALLURGICAL LITERATURE CLASSIFICATION

RESEARCH DIVISION

RESEARCH DIVISION



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CIA-RDP86-00513R001860730003-3

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860730003-3"

VOLYNKIN, N.I.

~~Method for the synthesis of arylthiourea and homologous mustard~~  
oils. Zhur. ob. khim. 27 no.2:483-485 F '57. (MLRA 10:6)

1. Leningradskiy institut kincinzhenerov.  
(Urea derivatives) (Isothiocyanic acid)